

**ENTERED**

July 12, 2016

David J. Bradley, Clerk

**IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF TEXAS  
HOUSTON DIVISION**

ONESUBSEA IP UK LIMITED, *et al.*, §  
Plaintiffs, §

v. §

FMC TECHNOLOGIES, INC., §  
Defendant. §

CIVIL ACTION NO. 4-16-0051

**MEMORANDUM AND ORDER ON CLAIM CONSTRUCTION**

This patent case is before the Court for construction of the disputed claim terms in United States Patents No. 6,637,514 (“the ’514 Patent”), 7,111,687 (“the ’687 Patent”), 8,066,076 (“the ’076 Patent”), 8,122,948 (“the ’948 Patent”), 8,272,435 (“the ’435 Patent”), 8,281,864 (“the ’864 Patent”), 8,540,018 (“the ’018 Patent”), 8,573,306 (“the ’306 Patent”), 8,746,332 (“the ’332 Patent”), and 8,776,893 (“the ’893 Patent”) (collectively, the “Patents-in-Suit”). The parties agree that construction of the disputed claim terms will apply consistently to all Patents-in-Suit.

The Court conducted a hearing pursuant to *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996) (“*Markman* hearing”), on June 23, 2016. Based on the evidence before the Court, the arguments presented by counsel, and the governing

legal authorities, the Court issues this Memorandum and Order construing those disputed claim terms that require construction.<sup>1</sup>

## **I. BACKGROUND**

Plaintiff OneSubsea IP UK Limited (“OneSubsea”) is the owner by assignment of the Patents-in-Suit, and Plaintiff OneSubsea UK Limited is an exclusive licensee. The Patents-in-Suit relate to the recovery of production fluids from an oil or gas well, particularly through a connection system for subsea flow interface equipment.

Subsea “Christmas trees” have long been used in the oil and gas industry to control the flow of oil and gas coming from a well. The Christmas trees typically contain “fluid flow passages” or “bores.” The production bore communicates with the pipe from which the oil and gas flows. The annulus bore, on the other hand, is generally used for troubleshooting, well servicing, and well conversion operations rather than for the actual oil and gas production. A branch bore extends from the production bore to allow fluids to flow to a connected production flowline connected to a branch outlet. The rate of flow can be controlled through the use of a choke, either fixed or adjustable.

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<sup>1</sup> The Patent Trial and Appeal Board (“PTAB”) recently instituted *inter partes* review (“IPR”) of all asserted claims of the ’018 Patent, the ’893 Patent, and the ’435 Patent. *See* Notices to Court Regarding IPR Institution Decisions [Docs. # 135 and # 144]. Additionally, the PTAB will issue a decision on the petition for IPR of the ’306 Patent by October 19, 2016.

In low pressure wells, the pressure of production fluids may need to be increased. In other circumstances, the production fluids may need to be treated. Installing a pump to increase pressure or a treatment apparatus in communication with an active subsea well can be difficult and interrupts production. Ian Donald, the named inventor for the Patents-in-Suit, invented systems and methods for installing a subsea pump or treatment apparatus that eliminated these problems.

Defendant FMC Technologies, Inc. (“FMC”) markets products that OneSubsea asserts infringe the Patents-in-Suit. Specifically, OneSubsea alleges that FMC’s Enhanced Vertical Deepwater Tree and its Retrievable Choke and Flow Module are infringing.<sup>2</sup>

OneSubsea filed its Opening Claim Construction Brief [Doc. # 122], FMC filed its Response [Doc. # 127], and OneSubsea filed its Reply [Doc. # 131]. Additionally, the parties filed a Joint Claim Construction Chart [Doc. # 136]. The parties worked together to narrow their disputed claim terms. Only the following terms remain in dispute and require construction by the Court: (1) branch, (2) divert and other forms of the word, (3) “flow diverter means” and “means to divert,” (4) connector, and (5) hub.

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<sup>2</sup> In its Counterclaim [Doc. # 24], FMC alleges that OneSubsea’s products infringe FMC’s Patent No. 6,715,554 and Patent No. 7,063,157. There are no disputed claim terms in either of FMC’s patents that require construction.

The Court conducted a *Markman* hearing at which the parties presented evidence and argument regarding the proper construction of these terms. The Court found the parties' oral argument to be extremely helpful and now construes the disputed claim terms.

## II. GENERAL LEGAL STANDARDS FOR CLAIM CONSTRUCTION

"It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Aventis Pharm., Inc. v. Amino Chems. Ltd.*, 715 F.3d 1363, 1373 (Fed. Cir. 2013) (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (*en banc*)). The patent claims in issue must be construed as a matter of law to determine their scope and meaning. *See, e.g., Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 390 (1996), *aff'g*, 52 F.3d 967, 976 (Fed. Cir.) (*en banc*); *Verizon Servs. Corp. v. Vonage Holdings Corp.*, 503 F.3d 1295, 1317 (Fed. Cir. 2007).

"There is a heavy presumption that claim terms are to be given their ordinary and customary meaning." *Aventis*, 715 F.3d at 1373 (citing *Phillips*, 415 F.3d at 1312-13; *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). Therefore, Courts must "look to the words of the claims themselves . . . to define the scope of the patented invention." *Id.* (citations omitted); *see also Summit 6, LLC v. Samsung Elec. Co., Ltd.*, 802 F.3d 1283, 1290 (Fed. Cir. 2015). The "ordinary and

customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, *i.e.*, as of the effective filing date of the patent application.” *Phillips*, 415 F.3d at 1313; *see also ICU Med., Inc. v. Alaris Med. Sys., Inc.*, 558 F.3d 1368, 1374 (Fed. Cir. 2009). This “person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Phillips*, 415 F.3d at 1313; *ICU*, 558 F.3d at 1374.

Intrinsic evidence is the primary resource for claim construction. *See Power-One, Inc. v. Artesyn Techs., Inc.*, 599 F.3d 1343, 1348 (Fed. Cir. 2010) (citing *Phillips*, 415 F.3d at 1312). For certain claim terms, “the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Phillips*, 415 F.3d at 1314. For other claim terms, however, the meaning of the claim language may be less apparent. To construe those terms, the Court considers “those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean . . . [including] the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic

evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.” *Id.*

The claims “provide substantial guidance as to the meaning of particular claim terms.” *Id.* The Court may consider the context in which the terms are used and the differences among the claims. *See id.* “Because claim terms are normally used consistently throughout the patent, the usage of a term in one claim can often illuminate the meaning of the same term in other claims.” *Id.* Because the claims “are part of a fully integrated written instrument,” the Court may also consider the specification and the patent’s prosecution history. *Id.* at 1315, 1317. When the claims use separate terms, “each term is presumed to have a distinct meaning.” *Primos, Inc. v. Hunter’s Specialties, Inc.*, 451 F.3d 841, 847 (Fed. Cir. 2006).

### **III. CONSTRUCTION OF DISPUTED CLAIM TERMS**

The Court has carefully reviewed the Patents-in-Suit, specifically the claims and specifications. The Court also has considered each counsel’s arguments in the briefs and as presented at the *Markman* hearing. The Court also has reviewed and applied the governing Federal Circuit authority. On this basis, the Court construes the following disputed terms in the claims of the Patents-in-Suit.

### A. **“Branch”**

The term “branch” is used in asserted claims in the ’948 Patent, the ’435 Patent, the ’306 Patent, and the ’893 Patent.<sup>3</sup> OneSubsea argues that the term “branch” is defined in the Patents-in-Suit as “any branch of the manifold, other than a production bore of a tree.” *See, e.g.*, ’306 Patent, 3:16-17. Where the inventor provides a definition for a claim term, “the inventor’s lexicography governs.” *Phillips*, 415 F.3d at 1316.

Michael Chad Darby, FMC’s expert, testified during the *Markman* hearing that a branch must diverge from a flowpath and, therefore, cannot be the flowpath itself. OneSubsea agrees that the term “branch” does not include the production bore or the annulus bore. Based on the parties’ agreement as stated during the *Markman* hearing, as well as the intrinsic evidence before the Court, the term “branch” is construed to mean “an offshoot from a flowpath such as the production bore or the annulus bore, but does not include the production bore or the annulus bore.”

### B. **“Divert” and Other Forms of that Word**

The term “divert” or a form of that word is used in asserted claims in the ’514 Patent, the ’687 Patent, the ’948 Patent, the ’435 Patent, the ’306 Patent, the ’332

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<sup>3</sup> The term “branch” is also in Claim 19 of the ’332 Patent, but OneSubsea has withdrawn its infringement allegations related to this claim. *See* Notice of Narrowing of Asserted Claims [Doc. # 139].

Patent, and the '893 Patent. OneSubsea argues that the term requires no construction when read in context, but if construction is deemed necessary, the term should be construed to mean “directing.”

FMC argues that the term requires that there be a change in direction from one flowpath to a different flowpath. The Court agrees with FMC that the fluid is not “diverted” if the fluid simply moves through a single flowpath, even if the direction within the single flowpath changes. Therefore, the Court construes the term “divert” to mean that “the direction of the fluid’s flow is forced to change from its current flowpath to a different flowpath.”

**C. “Flow Diverter Means”/“Means to Divert”**

The '687 Patent contains the limitations “flow diverter means” and “means to divert.” The parties agree that these terms are means-plus-function limitations under 35 U.S.C. § 112.

Construction of a means-plus-function limitation requires two steps. “First, the court must determine the claimed function.” *Noah Sys., Inc. v. Intuit Inc.*, 675 F.3d 1302, 1311 (Fed. Cir. 2012) (quoting *Applied Med. Res. Corp. v. U.S. Surgical Corp.*, 448 F.3d 1324, 1332 (Fed. Cir. 2006)). In this case, the parties agree that the function in the “flow diverter means” term is “to divert fluids from a first portion of the first flowpath to a second flowpath.” *See, e.g.*, FMC’s Response, p. 11. The parties agree



also that the function in the “means to divert fluids” term is “to divert fluids returned from the second flowpath to a second portion of the first flowpath.” *See id.*

Once the function is determined, “the court must identify the corresponding structure in the written description of the patent that performs the function.” *Id.* (quoting *Applied Med. Res.*, 448 F.3d at 1332). At this step, the court must not import “structural limitations from the written description that are unnecessary to perform the claimed function.” *Welker Bering Co. v. PHD, Inc.*, 550 F.3d 1090, 1097 (Fed. Cir. 2008) (quoting *Wenger Mfg., Inc. v. Coating Mach. Sys., Inc.*, 239 F.3d 1225, 1233 (Fed. Cir. 2001)). “Structural features that do not actually perform the recited function do not constitute corresponding structure and thus do not serve as claim limitations.” *Asyst Techs., Inc. v. Empak, Inc.*, 268 F.3d 1364, 1370 (Fed. Cir. 2001).

The parties agree that, at a minimum, the structural elements are (1) a seal, (2) a production bore straddle having seals, and (3) a conduit with metal, inflatable or resilient seals. FMC proposes a construction, however, that also includes functional requirements. For example, OneSubsea proposes that the first structural element is a seal. FMC proposes that the seal must be “configured to seal an inside wall of and completely plug a bore.” Although the seal must function properly in order to divert fluids, the seal itself is the structural element, and it is improper to add the functional requirements that FMC suggests.

FMC's proposed construction also includes extra structural elements that do not operate to divert the fluid. The "open crossover valve" and the "open production swab valve" suggested by FMC may allow the seal and the production bore straddle to operate as intended, but neither of these two structural elements performs the specific agreed function of diverting the fluid. *See, e.g., Asyst*, 269 F.3d at 1371.

The Court agrees with FMC that, although possibly redundant, the straddle has seals "at opposing ends," and the conduit has seals "on its outside." Therefore, based on the parties' submissions and the Court's consideration of the record, the Court construes the structures in the means-plus-function limitations in the '687 Patent to be (1) a seal; (2) a production bore straddle having seals at opposing ends; and (3) a conduit with metal, inflatable or resilient seals on its outside.

**D. "Connector"**

The term "connector" is used in asserted claims in the '306 Patent, the '893 Patent, and the '018 Patent. OneSubsea argues that the term requires no construction or, if any construction is necessary, should be construed to mean "a device that joins or attaches things together." FMC argues that the term should be construed to mean "a device that attaches things together" because mere joining is insufficient. FMC argues also that the term "connector" should be construed to require that the attachment must "secure" things together. The Court concludes "join" is too vague

as it would encompass two items merely coming into contact with each other. There is no basis for implying the connector “secures” two items together. To the extent any construction is required, the Court construes the term “connector” to mean “a device that attaches things together.”

**E.     “Hub”**

The term “hub” is used in asserted claims in the ’893 Patent and the ’018 Patent. Each of these patents is currently before the PTAB for *inter partes* review. Additionally, the Court did not have adequate time during the *Markman* hearing to receive testimony regarding the definition of “hub” as understood by persons skilled in the art in the relevant industry. As a result, the Court declines at this time to construe the term “hub.” The Court will issue a construction of this term once the PTAB issues its decision in connection with the *inter partes* review of the ’893 and the ’018 Patents, and the parties submit additional information, if needed.

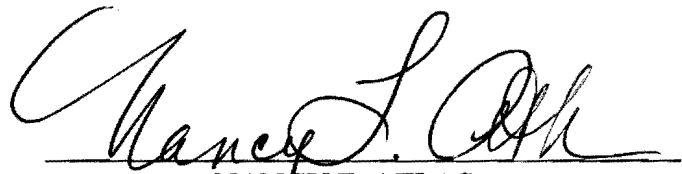
**IV.    CONCLUSION**

The Court has considered the intrinsic evidence in the record. The Court also has considered the parties’ oral arguments and explanations during the *Markman* hearing, which the Court found very helpful and informative. Based on this consideration of the intrinsic evidence and the parties’ arguments, as well as the

application of governing claim construction principles, the Court construes the disputed terms in the Patents-in-Suit, with the exception of “hub,” as set forth herein.

It is **SO ORDERED**.

SIGNED at Houston, Texas, this **12th** day of **July, 2016**.



NANCY F. ATLAS  
SENIOR UNITED STATES DISTRICT JUDGE